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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,988	09/17/2003	Toru Kimura	14157-012001	4635
26161	7590	08/09/2006	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			COLE, ELIZABETH M	
			ART UNIT	PAPER NUMBER

1771

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/664,988

Applicant(s)

KIMURA ET AL.

Examiner

Elizabeth M. Cole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 13-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 13-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/24/06 has been entered.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, 13-19, 21- 22 are rejected under 35 U.S.C. 102(b) as being anticipated by JP2002212310. JP '310 discloses a molded article comprising a polymeric material which may be reinforced with a fabric, (paragraph 0056) and which further comprises short fibers which may be oriented in a single direction by the application of a magnetic field, (paragraph 0017). The fibers have a length of 10 mm or less and the claimed anisotropic diamagnetic susceptibility, (paragraphs 0017 and 0018). The fibers may comprise organic fibers, (paragraph 0017). Looking at paragraph 0054, JP '310 teaches that the polymeric material may be reinforced with a fabric and that the short fibers can be intermingled with the fabric. See paragraph 0054. Looking at figure 2d, the short fibers can be oriented in a direction which crosses the plane of reinforcing fabric, since the fibers are perpendicular to the upper and lower

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faces of the molded material. Since the fabric reinforcement would have to be parallel to the upper and lower faces, and since figure 2d teaches that the fibers can be perpendicular to the upper and lower faces and since paragraph 0054 teaches that the short fibers are intermingled with the fabric reinforcement, JP '310 teaches a polymeric molded material comprising a reinforcing fabric wherein the molded material may further comprise short fibers which are oriented in a direction perpendicular to the reinforcing fabric and which penetrate the reinforcing fabric.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, 13-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002212310 A, abstract and machine translation attached. JP '310 discloses a molded article comprising a polymeric material which may be reinforced with a fabric, (paragraph 0056) and which further comprises short fibers which may be oriented in a single direction by the application of a magnetic field, (paragraph 0017). The fibers have a length of 10 mm or less and the claimed anisotropic diamagnetic susceptibility, (paragraphs 0017 and 0018). The fibers may comprise organic fibers, (paragraph 0017). JP '310 differs from the claimed invention because it does not clearly state that the fibers are oriented in a direction crossing the fabric, however, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have chosen the direction of orientation of the fibers so that they provided optimum

reinforcement to the molded article. Further, it is noted that the examples in JP '310 teaches that the fibers can be oriented in either the longitudinal or thickness direction. See paragraphs 0098 , 0099. With regard to the limitation that the fabric is penetrated by some of the fibers, JP '310 teaches that the reinforcing fibers can be intermingled with the fibers, which would equate to the limitation to the regarding the fibers penetrating the fabric. See paragraph 0054.

6. Applicant's arguments filed 4/26/06 have been fully considered but they are not persuasive. Applicant argues that the teaching of JP '310 that the fibers and fabric can be intermingled does not mean that the fibers are oriented in a direction crossing with a plane of the fibers cloth and that some of the fibers are located in the fiber cloth because intermingle means mix together and that the statement that the fibers and fabric are intermingled does not specify in any way the orientation and location of the fibers relative to the fabric in a mixture of the two. However, JP '310 clearly teaches that the short fibers are added to the material so that they can be oriented in a particular directions. The figures, especially figure 2d shows that the fibers are oriented in a direction perpendicular to the upper and lower surfaces of the molded material. Thus, taking the teachings of the reference as a whole, especially considering that the whole point of JP '310 is to teach reinforcing a molded material with short fibers which are oriented in a particular direction using the application of a magnetic field, it is clear that the short fibers in JP '310 which are intermingled and intermixed with the reinforcing fabric are also oriented in a particular direction, either parallel to or perpendicular to the reinforcing fabric.

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7. Applicant argues that it would not have been obvious to one of ordinary skill in the art to have selected the particular orientation of the fibers in order optimize the reinforcement provided to the composite material because JP '310 teaches a material having excellent anisotropic properties. However, JP '310 also teaches the inclusion of reinforcing fabrics which can also change the properties of the molded article. See paragraph 0054. Further, the material of JP '310 would still have anisotropic properties because the fabric reinforcement would provide one degree or amount or type of reinforcement in one direction, while the short fibers would provide a second different amount or type of reinforcement in the second direction. The reinforcement provided by a woven or nonwoven fabric is different than the reinforcement provided by short fibers.

8. Applicant's arguments regarding the 112 1st paragraph rejection are persuasive and that rejection is withdrawn.

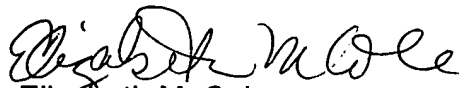
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.

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A handwritten signature in cursive script, appearing to read "Elizabeth M. Cole".

Elizabeth M. Cole
Primary Examiner
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e.m.c